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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,993	07/30/2003	Michael R. Hatch	73600.P002RC	2371

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Bradley J Bereznak  
Burgess & Bereznak LLP  
800 West El Camino Real  
Suite 180  
Mountain View, CA 94040

EXAMINER

TUPPER, ROBERT S

ART UNIT

PAPER NUMBER

2652

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/631,993	<b>Applicant(s)</b> HATCH ET AL.	
	<b>Examiner</b> Robert S. Tupper	<b>Art Unit</b> 2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 6-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, and 6-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                                    |

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1. This application was filed with amendments to the claims that included the addition of new claims 22-35. The preliminary amendment filed 12/9/03 further amended the claims, but did not include either a copy of claims 25-35, or any direction to cancel these claims. The Examiner is presuming that these claims are being canceled, and the following action was done using that presumption.

Applicant must cancel these claims in the response to this Office Action.

2. The amendment filed 2/17/04 has not been entered. It appears that the papers filed in this amendment do not contain any actual amendments.

3. The drawing change of 12/9/03 is NOT approved. The figure being amended must be labeled as "amended".

Applicant must correct this in the response to this Office Action.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 9, 12, 13, 15, 18, 21, and 22 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by JP 60-167172.

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Note the embodiment of figure 6. JP 60-167172 shows a single piece head suspension with an air bearing slider mounting a head (36), the suspension having a load beam section with flanges (not numbered), a spring section (not numbered), an actuator mount section (not numbered), a flexure section (32) having a shaped opening (not numbered) with two longitudinal flexure beams (not numbered), a transverse section connecting the flexure beams and to which the slider is attached, a tongue with a load protrusion (34) extending from the distal end of the load beam section. Note that the section mounting the slider is "bent" (re claim 22).

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172.

JP 60-167172 differs from the claimed invention in not listing specific dimensions for the slider.

JP 60-167172 simply does not disclose dimensions. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the listed dimensions. The motivation is as follows: these would have been the obvious result of routine experimentation and optimization.

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8. Claims 1, 2, 6, 9, 12, 13, 15, 18, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172.

THIS IS AN ALTERNATIVE REJECTION BASED UPON A DIFFERENT EMBODIMENT OF JP 60-167172.

Note the embodiment of figures 3 and 4. JP 60-167172 shows a single piece head suspension with an air bearing slider mounting a head (36), the suspension having a load beam section with flanges (not numbered), a spring section (not numbered), an actuator mount section (not numbered), a flexure section (32) having a shaped opening (not numbered) with two longitudinal flexure beams (not numbered), a transverse section connecting the flexure beams and to which the slider is attached, a tongue (34) extending from the distal end of the load beam section. Note that the section mounting the slider is "bent" (re claim 22).

JP 60-167172 differs from the claimed invention in not: (A) locating the load protrusion on the tongue (re claim 1), and (B) listing specific dimensions for the slider (re claim 6).

Concerning (A), JP 60-167172 locates the load protrusion on the slider mount member. It would have been obvious to one of ordinary skill in the art at the time the invention was made to locate the protrusion on the tongue. The motivation is as follows: these are art recognized equivalents that operate in the same manner and produce the same results. There is no showing of criticality.

Concerning (B), JP 60-167172 simply does not disclose dimensions. It would have been obvious to one of ordinary skill in the art at the time the invention was made

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to utilize the listed dimensions. The motivation is as follows: these would have been the obvious result of routine experimentation and optimization.

9. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172, as applied in either paragraph 5 or 7 above, in view of CARLSON et al (5,008,768).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing the flexure mount side of the slider to be stepped.

Stepped flexure mount sides are well know and commonly used. CARLSON et al shows such a slider configuration (see figure 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the slider in JP 60-167172 to have a stepped flexure mount side. The motivation is as follows: CARLSON et al teaches that this reduces the overall height of the suspension/slider (see column 4 lines10-15).

10. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172, as applied in either paragraph 5 or 7 above, in view of WATROUS (4,167,765).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing a hemispherical load protrusion.

Hemispherical load protrusions are well known and commonly used. WATROUS shows such.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to configure the load protrusion in JP 60-167172 to have a hemispherical shape. The motivation is as follows: WATROUS teaches that these are known equivalents (see column 4 lines 51-53).

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172, as applied in either paragraph 5 or 7 above, in view of TOENSING (5,012,367).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing how the suspension is attached to the actuator arm.

Ball staking using a swage plate is well known and commonly used. TOENSING shows such.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a swage plate for attaching the suspension in JP 60-167172. The motivation is as follows: one of ordinary skill in the art would use any known attachment structure where none was specified.

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172, as applied in either paragraph 5 or 7 above, in view of MOREHOUSE et al (5,237,472).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing the signal wires and their attachment channel.

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Attaching the signal wires using a channel along the outer flange is well known and commonly used. MOREHOUSE et al shows this (see figure 12f and column 10 lines 12-40).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a shallow channel along the outer flange to locate and secure the signal wires. The motivation is as follows: one of ordinary skill in the art would use any known attachment structure where none was shown.

13. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172, as applied in either paragraph 5 or 7 above, in view of CHRISTIANSON et al (5,461,525).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing the spring section to have an opening.

The provision of an opening in the spring section is well known and commonly used. CHRISTIANSON et al shows such (see figures 1 and 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an opening in the spring section of JP 60-167172. The motivation is as follows: CHRISTIANSON et al teaches that this to be an improvement.

14. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172, as applied in either paragraph 5 or 7 above, in view of BLAESER et al (5,187,625).



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JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing a damping element attached to the load beam section.

The provision of a damping element on the load beam section is well known and commonly used. BLAESER et al shows such (see figures 2, 6, and 9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a damping element on the load beam section of JP 60-167172. The motivation is as follows: one of ordinary skill in the art would provide such for its known improvement in reducing the amplitude of resonant modes of vibration.

15. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172, as applied in either paragraph 5 or 7 above, in view of WOLTER (5,291,359).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not showing a load tab attached to the load beam section.

The provision of a load tab on the load beam section is well known and commonly used. WOLTER shows such (see figures 7-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a load tab on the load beam section of JP 60-167172. The motivation is as follows: one of ordinary skill in the art would use any known structure where none was specified.

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16. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-167172, as applied in either paragraph 5 or 7 above, in view of KING (4,399,476).

JP 60-167172 shows a head suspension substantially as claimed. JP 60-167172 differs in not: (A) offsetting the load protrusion (re claim 23), and (B) utilizing the listed offset dimension range (re claim 24).

KING teaches offsetting the load protrusion.

Concerning (A), it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teaching of KING to offset the load protrusion in JP 60-167172. The motivation is as follows: KING teaches that this improves head loading and movement control.

Concerning (B), it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the listed dimension range. The motivation is as follows: this would have been the obvious result of routine experimentation and optimization.

17. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

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Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

18. Claims 1, 2, 9, 11, 15, 16, 18, 23, and 24 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 36, 36, 36, 36, 40, 41, 37, 38, and 39 respectively of copending Application No. 08/662885. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims merely (A) utilize different terminology, (B) delete limitations, (C) add known elements and (D) recite inherent functional results.

The following explanation uses pending claim 1 as an example.

Concerning (A), present claim 1 recites a "transverse section", "load point tongue", and "load supporting protrusion", while claim 36 in '885 recites a "second member", "first member", and "protrusion". It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize different terminology.

Concerning (B), present claim 1 deletes the following recitations from claim 36 in '885: "magnetic" (line 1) and "partially etched" (line 9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to delete limitations.

Concerning (C), present claim 1 adds the recitation of a "slider" (line 3), "shaped opening" (line 8), and "flexure section" (line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the listed recitations. Concerning the "slider", claim 36 recites that the second member has a slider mounting

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surface. Concerning both the shaped opening and the flexure section, these merely recite the structures inherently presented by the listed structural elements.

Concerning (D), present claim 1 adds the recitation "such that... slider". This merely states the functional result provided by the listed structural elements.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

19. Claim 11 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 36 of copending Application No. 08/662528. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims merely (A) utilize different terminology, (B) add known elements and (C) recite inherent functional results.

Concerning (A), present claim 1 recites a "head suspension assembly", "load point tongue", and "load supporting protrusion", while claim 36 in '885 recites a "apparatus", "tongue", and "load point protrusion". It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize different terminology.

Concerning (B), present claim 1 adds the recitation of a "slider" (line 3) and a "flexure section" (line 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the listed recitations. Concerning the "slider", claim 36 recites that the transverse section has a slider mounting surface. Concerning

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the flexure section, this merely recite the section inherently presented by the listed structural elements.

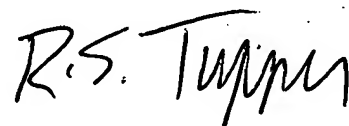
Concerning (C), present claim 1 adds the recitation "such that... slider". This merely states the functional result provided by the listed structural elements.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert S. Tupper whose telephone number is 571-272-7581. The examiner can normally be reached on Mon - Fri, 6:30 AM - 4:00 PM (first Fri off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert S Tupper  
ROBERT S. TUPPER  
PRIMARY EXAMINER  
GROUP 2500

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